

From: [Chris Kite](#)
To: [Snyder, Erik](#); [Riley, Jeffrey](#); [Group Mobile](#)
Cc: [Terry Salem](#); [Sierra Redding](#); [Stephen Davis](#); [Zarena Post](#)
Subject: Request for EPA Input on SIP Comment Received About VW Non-Compliance
Date: Wednesday, February 24, 2016 3:02:18 PM

Dear EPA Region 6 and Office of Transportation and Air Quality (OTAQ),

I'm not sure which group in EPA should address this issue, so I decided on sending it to both Region 6 and OTAQ. We need EPA's input on a comment recently received concerning the on-road emissions impact of the 2009-2016 model year light-duty diesel violations by Volkswagen (VW) and its subsidiaries, as referenced at <http://www.epa.gov/vw>. The Texas Commission on Environmental Quality (TCEQ) is developing responses to comments received on a proposed attainment demonstration State Implementation Plan (SIP) under the 75 parts per billion (ppb) eight-hour ozone standard for the Dallas-Fort Worth (DFW) area: <http://www.tceq.state.tx.us/airquality/sip/dfw/dfw-latest-ozone>. The 2017 future case on-road emissions inventory for this attainment SIP was developed with the 2014 version of the Motor Vehicle Emission Simulator (MOVES2014) model prior to the initial announcement of the VW violations back in September 2015.

Here is the title and full text of the comment received: "Volkswagen Underreported Mobile Source Emissions: The mobile source emissions used in the modeling are also lower than actual emissions because there has been widespread cheating on mobile source emission compliance. See Ex. 6. The cheating mobile sources are all for model years after 2006 which means that TCEQ's claimed reduction in mobile source emissions post-2006 are inflated. Ex. 6 at Appendix A & B." The Exhibit 6 referenced in the comment is the January 4, 2016 complaint filed against VW by the U.S. Department of Justice on behalf of EPA: <http://www.justice.gov/opa/file/809826/download>.

Incorporating the effects of the VW violations into the 2017 on-road emissions inventory for our SIP would require altering the diesel fuel passenger car and/or passenger truck emission rates in the MOVES model. The current EPA MOVES technical guidance basically says that states should use as much local data as possible for fleet characterization, vehicle miles traveled, fuel properties, etc., but should not alter the underlying MOVES model emission rates without first consulting with EPA. For example, in Section 4.16 on page 59 of the November 2015 MOVES technical guidance (<https://www3.epa.gov/otaq/models/moves/documents/420b15093.pdf>), it says: "Users should note that there are complex interactions between tables in MOVES, and there may be unintended consequences from changing any table. Generally, other than the Stage II inputs mentioned above, most tables should never be changed and results will not be acceptable if such tables are modified."

To address the portion of the comment about the 2017 future attainment year emission estimates being too low based on MOVES2014, we need your help with the following questions/issues:

1. Does EPA have plans to update the MOVES model to account for both the VW defeat devices and any corrective action that may be taken on the affected vehicles? When heavy-duty diesel engine manufacturers were found to have included defeat devices back in the 1990s, EPA incorporated both the cheating and the corrective action into the MOBILE6 model.

2. If the answer to #1 is yes, do you have an estimate of when the MOVES model will be revised so that states will be able to properly incorporate these effects into their SIP work?
3. The most recent DFW attainment SIP revision was proposed in December 2015 and is currently scheduled for adoption in June 2016, followed by formal submission to EPA. If the MOVES model will not be revised to account for the VW impacts within the very near future, are there short-term steps that states should take to address this issue in their current SIP work? If so, can you outline detailed inventory development procedures that should be followed? If not, please confirm that this VW non-compliance is an issue that states should not include in SIP work unless and until direction is provided by EPA.
4. At this time, does EPA anticipate that any corrective action will either start or be completed by VW and its subsidiaries prior the 2017 ozone season? The MOVES2014 input files for this work specified July 2017 for the purposes of estimating emission rates and are available within these TCEQ FTP directories:
 - a. ftp://amdaftp.tceq.texas.gov/pub/Mobile_EI/DFW/mvs/2017/ for the 10-county DFW area; and
 - b. ftp://amdaftp.tceq.texas.gov/pub/Mobile_EI/Statewide/mvs/2017/ for the remaining 244 Texas counties.
5. If the anticipated corrective action will not be 100% complete prior to the 2017 ozone season, do you have an estimate of partial corrective action at this time (e.g., 25%, 50%, 75%, etc.)?
6. Besides the questions/issues addressed above in items #1-5, do you have any additional guidance or recommendations about how states should address this VW non-compliance issue in their SIP development efforts?

We understand that this matter may not fully resolved at this time. However, we do need to address it within our current SIP work, and appreciate any help you can provide both on the VW non-compliance issue in general and on this specific comment. Thanks.

Chris Kite

From: [Riley, Jeffrey](#)
To: [Chris Kite](#); [Snyder, Erik](#)
Subject: RE: Request for EPA Input on SIP Comment Received About VW Non-Compliance
Date: Thursday, February 25, 2016 12:56:19 PM

Good Afternoon Chris,

Thanks for your message, and for the amount of detail you've given on the background and pertinent questions for SIP work. You've included OTAQ via Group Mobile, and I would say they are the appropriate EPA entity to receive these concerns as the agency develops policy and a path forward. I'm not aware of any policy directives communicated to regional offices at this point.

Please keep me posted on what you hear/don't hear from OTAQ.

Jeffrey Riley
US EPA - Region 6
State Implementation Section 6MM-AA
Multimedia Division
(214)665-8542
riley.jeffrey@epa.gov

From: Chris Kite [mailto:chris.kite@tceq.texas.gov]
Sent: Wednesday, February 24, 2016 3:02 PM
To: Snyder, Erik <snyder.erik@epa.gov>; Riley, Jeffrey <Riley.Jeffrey@epa.gov>; Group Mobile <Mobile@epa.gov>
Cc: Terry Salem <terry.salem@tceq.texas.gov>; Sierra Redding <Sierra.Redding@tceq.texas.gov>; Stephen Davis <stephen.davis@tceq.texas.gov>; Zarena Post <zarena.post@tceq.texas.gov>
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reduction in mobile source emissions post-2006 are inflated. Ex. 6 at Appendix A & B.” The Exhibit 6 referenced in the comment is the January 4, 2016 complaint filed against VW by the U.S. Department of Justice on behalf of EPA: <http://www.justice.gov/opa/file/809826/download>.

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To address the portion of the comment about the 2017 future attainment year emission estimates being too low based on MOVES2014, we need your help with the following questions/issues:

1. Does EPA have plans to update the MOVES model to account for both the VW defeat devices and any corrective action that may be taken on the affected vehicles? When heavy-duty diesel engine manufacturers were found to have included defeat devices back in the 1990s, EPA incorporated both the cheating and the corrective action into the MOBILE6 model.
2. If the answer to #1 is yes, do you have an estimate of when the MOVES model will be revised so that states will be able to properly incorporate these effects into their SIP work?
3. The most recent DFW attainment SIP revision was proposed in December 2015 and is currently scheduled for adoption in June 2016, followed by formal submission to EPA. If the MOVES model will not be revised to account for the VW impacts within the very near future, are there short-term steps that states should take to address this issue in their current SIP work? If so, can you outline detailed inventory development procedures that should be followed? If not, please confirm that this VW non-compliance is an issue that states should not include in SIP work unless and until direction is provided by EPA.
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5. If the anticipated corrective action will not be 100% complete prior to the 2017 ozone

season, do you have an estimate of partial corrective action at this time (e.g., 25%, 50%, 75%, etc.)?

6. Besides the questions/issues addressed above in items #1-5, do you have any additional guidance or recommendations about how states should address this VW non-compliance issue in their SIP development efforts?

We understand that this matter may not fully resolved at this time. However, we do need to address it within our current SIP work, and appreciate any help you can provide both on the VW non-compliance issue in general and on this specific comment. Thanks.

Chris Kite

From: [Riley, Jeffrey](#)
To: [Donaldson, Guy](#)
Cc: [Snyder, Erik](#)
Subject: RE: Request for EPA Input on SIP Comment Received About VW Non-Compliance
Date: Thursday, February 25, 2016 12:55:09 PM

Will do – thanks!

Jeffrey Riley
US EPA - Region 6
State Implementation Section 6MM-AA
Multimedia Division
(214)665-8542
riley.jeffrey@epa.gov

From: Donaldson, Guy
Sent: Thursday, February 25, 2016 12:53 PM
To: Riley, Jeffrey <Riley.Jeffrey@epa.gov>
Cc: Snyder, Erik <snyder.erik@epa.gov>
Subject: RE: Request for EPA Input on SIP Comment Received About VW Non-Compliance

That message is fine. Please follow it up with a call to OTAQ to be sure they coordinate with us before responding to Texas.

From: Riley, Jeffrey
Sent: Thursday, February 25, 2016 12:44 PM
To: Donaldson, Guy
Subject: FW: Request for EPA Input on SIP Comment Received About VW Non-Compliance

Hi Guy,

Chris Kite included me and Erik on the message below to OTAQ/Group Mobile regarding a comment received on the proposed DFW attainment demonstration relating to Volkswagen emissions underreporting. Think there's any harm in sending this response?:

"Thanks for your message, and for the amount of detail you've given on the background and pertinent questions for SIP work. You've included OTAQ via Group Mobile, and I would say they are the appropriate EPA entity to receive these concerns as the agency develops policy and a path forward. I'm not aware of any policy directives communicated to regional offices at this point.

Please keep me posted on what you hear/don't hear from OTAQ."

Jeffrey Riley
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Sent: Wednesday, February 24, 2016 3:02 PM
To: Snyder, Erik <snyder.erik@epa.gov>; Riley, Jeffrey <Riley.Jeffrey@epa.gov>; Group Mobile <Mobile@epa.gov>
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Chris Kite

From: [Chris Kite](#)
To: [Group Mobile](#)
Cc: [Snyder, Erik](#); [Riley, Jeffrey](#); [Stephen Davis](#); [Zarena Post](#); [Terry Salem](#); [Sierra Redding](#)
Subject: FW: Request for EPA Input on SIP Comment Received About VW Non-Compliance
Date: Monday, March 21, 2016 11:03:44 AM

Dear OTAQ,

We wanted to follow up on our February 24, 2016 e-mail provided below to see if EPA has any direction on how states should handle the VW non-compliance issue in their current SIP work. We already heard back from your Region 6 office in Dallas, and they indicated that your office is the appropriate EPA entity to address the various questions. We are currently finishing up the technical work and documentation for the Dallas-Fort Worth (DFW) area attainment SIP to be adopted this summer, and appreciate any help you can provide. Thanks.

Chris Kite

From: Chris Kite
Sent: Wednesday, February 24, 2016 3:02 PM
To: 'snyder.erik@epa.gov' <snyder.erik@epa.gov>; 'riley.jeffrey@epa.gov' <riley.jeffrey@epa.gov>; 'mobile@epa.gov' <mobile@epa.gov>
Cc: Terry Salem <Terry.Salem@tceq.texas.gov>; Sierra Redding <Sierra.Redding@tceq.texas.gov>; Stephen Davis <Stephen.Davis@tceq.texas.gov>; Zarena Post <Zarena.Post@tceq.texas.gov>
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Department of Justice on behalf of EPA: <http://www.justice.gov/opa/file/809826/download>.

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To address the portion of the comment about the 2017 future attainment year emission estimates being too low based on MOVES2014, we need your help with the following questions/issues:

1. Does EPA have plans to update the MOVES model to account for both the VW defeat devices and any corrective action that may be taken on the affected vehicles? When heavy-duty diesel engine manufacturers were found to have included defeat devices back in the 1990s, EPA incorporated both the cheating and the corrective action into the MOBILE6 model.
2. If the answer to #1 is yes, do you have an estimate of when the MOVES model will be revised so that states will be able to properly incorporate these effects into their SIP work?
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Chris Kite

From: [Timin, Brian](#)
To: [Snyder, Erik](#)
Cc: [Phillips, Sharon](#)
Subject: RE: Request for EPA Input on SIP Comment Received About VW Non-Compliance
Date: Monday, March 21, 2016 1:29:21 PM

No, but see if Sharon has any suggestions. She works more closely with OTAQ staff than I do.

Brian

From: Snyder, Erik
Sent: Monday, March 21, 2016 1:25 PM
To: Timin, Brian
Subject: FW: Request for EPA Input on SIP Comment Received About VW Non-Compliance

Hi Brian,

Do you know anyone at OTAQ that TCEQ should be contacting on this issue?

Thanks,
Erik

Erik Snyder
Lead Regional Air Quality Modeler
EPA Region 6
Phone: 214-665-7305
Fax: 214-665-7263
email: snyder.erik@epa.gov

From: Chris Kite [<mailto:chris.kite@tceq.texas.gov>]
Sent: Monday, March 21, 2016 11:04 AM
To: Group Mobile <Mobile@epa.gov>
Cc: Snyder, Erik <snyder.erik@epa.gov>; Riley, Jeffrey <Riley.Jeffrey@epa.gov>; Stephen Davis <stephen.davis@tceq.texas.gov>; Zarena Post <zarena.post@tceq.texas.gov>; Terry Salem <terry.salem@tceq.texas.gov>; Sierra Redding <Sierra.Redding@tceq.texas.gov>
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Chris Kite

From: [Phillips, Sharon](#)
To: [Timin, Brian](#); [Snyder, Erik](#)
Subject: RE: Request for EPA Input on SIP Comment Received About VW Non-Compliance
Date: Wednesday, March 23, 2016 3:35:23 PM

FYI – looks like the response on how to handle VWs in SIPs is working its way through the OTAQ review chain and should hopefully be back to Erik soon.

Thanks,
Sharon

From: Timin, Brian
Sent: Monday, March 21, 2016 2:29 PM
To: Snyder, Erik <snyder.erik@epa.gov>
Cc: Phillips, Sharon <Phillips.Sharon@epa.gov>
Subject: RE: Request for EPA Input on SIP Comment Received About VW Non-Compliance

No, but see if Sharon has any suggestions. She works more closely with OTAQ staff than I do.

Brian

From: Snyder, Erik
Sent: Monday, March 21, 2016 1:25 PM
To: Timin, Brian
Subject: FW: Request for EPA Input on SIP Comment Received About VW Non-Compliance

Hi Brian,

Do you know anyone at OTAQ that TCEQ should be contacting on this issue?

Thanks,
Erik

Erik Snyder
Lead Regional Air Quality Modeler
EPA Region 6
Phone: 214-665-7305
Fax: 214-665-7263
email: snyder.erik@epa.gov

From: Chris Kite [<mailto:chris.kite@tceq.texas.gov>]
Sent: Monday, March 21, 2016 11:04 AM
To: Group Mobile <Mobile@epa.gov>

Cc: Snyder, Erik <snyder.erik@epa.gov>; Riley, Jeffrey <Riley.Jeffrey@epa.gov>; Stephen Davis <stephen.davis@tceq.texas.gov>; Zarena Post <zarena.post@tceq.texas.gov>; Terry Salem <terry.salem@tceq.texas.gov>; Sierra Redding <Sierra.Redding@tceq.texas.gov>
Subject: FW: Request for EPA Input on SIP Comment Received About VW Non-Compliance

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Chris Kite

From: Chris Kite

Sent: Wednesday, February 24, 2016 3:02 PM

To: 'snyder.erik@epa.gov' <snyder.erik@epa.gov>; 'riley.jeffrey@epa.gov' <riley.jeffrey@epa.gov>; 'mobile@epa.gov' <mobile@epa.gov>

Cc: Terry Salem <Terry.Salem@tceq.texas.gov>; Sierra Redding <Sierra.Redding@tceq.texas.gov>; Stephen Davis <Stephen.Davis@tceq.texas.gov>; Zarena Post <Zarena.Post@tceq.texas.gov>

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Department of Justice on behalf of EPA: <http://www.justice.gov/opa/file/809826/download>.

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To address the portion of the comment about the 2017 future attainment year emission estimates being too low based on MOVES2014, we need your help with the following questions/issues:

1. Does EPA have plans to update the MOVES model to account for both the VW defeat devices and any corrective action that may be taken on the affected vehicles? When heavy-duty diesel engine manufacturers were found to have included defeat devices back in the 1990s, EPA incorporated both the cheating and the corrective action into the MOBILE6 model.
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We understand that this matter may not fully resolved at this time. However, we do need to address it within our current SIP work, and appreciate any help you can provide both on the VW non-compliance issue in general and on this specific comment. Thanks.

Chris Kite

From: [Chris Kite](#)
To: [Snyder, Erik](#)
Subject: RE: Request for EPA Input on SIP Comment Received About VW Non-Compliance
Date: Thursday, March 31, 2016 7:51:43 PM

Erik,

Thanks so much for keeping me up to date. If I hear back from OTAQ and don't see you and Jeff Riley copied, I'll be sure to forward along their response. I plan to be out of the office tomorrow, so have a good weekend.

Chris

From: Snyder, Erik [mailto:snyder.erik@epa.gov]
Sent: Thursday, March 24, 2016 6:46 AM
To: Chris Kite <chris.kite@tceq.texas.gov>
Subject: FW: Request for EPA Input on SIP Comment Received About VW Non-Compliance

I did some poking on your question and it sounds like the response is in OTAQ review chain at this point. Didn't know if you had heard anything yet.

-Erik

From: Chris Kite [<mailto:chris.kite@tceq.texas.gov>]
Sent: Monday, March 21, 2016 11:04 AM
To: Group Mobile <Mobile@epa.gov>
Cc: Snyder, Erik <snyder.erik@epa.gov>; Riley, Jeffrey <Riley.Jeffrey@epa.gov>; Stephen Davis <stephen.davis@tceq.texas.gov>; Zarena Post <zarena.post@tceq.texas.gov>; Terry Salem <terry.salem@tceq.texas.gov>; Sierra Redding <Sierra.Redding@tceq.texas.gov>
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Sent: Wednesday, February 24, 2016 3:02 PM

To: 'snyder.erik@epa.gov' <snyder.erik@epa.gov>; 'riley.jeffrey@epa.gov' <riley.jeffrey@epa.gov>; 'mobile@epa.gov' <mobile@epa.gov>

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From: [Group Mobile](#)
To: [Chris Kite](#); [Group Mobile](#)
Cc: [Snyder, Erik](#); [Riley, Jeffrey](#); [Stephen Davis](#); [Zarena Post](#); [Terry Salem](#); [Sierra Redding](#)
Subject: RE: Request for EPA Input on SIP Comment Received About VW Non-Compliance
Date: Tuesday, May 31, 2016 3:16:20 PM

I am very sorry for the very long delay in responding to your question.

Thank you for your question regarding MOVES inventory projections and the impact of Volkswagen non-compliance. As you know, the investigation of VW non-compliance is ongoing. The current version of MOVES continues to be the appropriate version for use for SIP purposes unless and until EPA issues further guidance.

The MOVES Team

From: Chris Kite [mailto:chris.kite@tceq.texas.gov]
Sent: Monday, March 21, 2016 12:04 PM
To: Group Mobile <Mobile@epa.gov>
Cc: Snyder, Erik <snyder.erik@epa.gov>; Riley, Jeffrey <Riley.Jeffrey@epa.gov>; Stephen Davis <stephen.davis@tceq.texas.gov>; Zarena Post <zarena.post@tceq.texas.gov>; Terry Salem <terry.salem@tceq.texas.gov>; Sierra Redding <Sierra.Redding@tceq.texas.gov>
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